

Article

Cooperation in the Face of Transboundary Crisis: A Framework for Analysis

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Address correspondence to the author at boin@fsw.leidenuniv.nl.**Abstract**

The nation state is discovering the limits of its crisis management capacities. The Ebola and Zika outbreaks, the financial crisis, the downing of flight MH17 over Ukraine, sinking ships overfilled with refugees, cyber-attacks, urban terrorism and existential environmental threats serve as strong reminders of the complex origins and transboundary dimensions of many contemporary crises and disasters. As these transboundary aspects of modern crises become increasingly manifest, the need for international, collaborative responses appears ever clearer. But that collaboration does not always emerge in time (or at all). Even in the European Union, which has various transboundary crisis management mechanisms in place, the willingness to initiate joint crisis responses varies. This observation prompted our research question: Why do states collaborate in response to some transboundary crises but not others? We bring together the crisis and collective action literatures to formulate a theoretical framework that can help answer this question. This article identifies crucial factors that facilitate a possible pathway toward a joint response.

Introduction: Collaboration in the Face of Transboundary Crises¹

Whether we consider the Eurozone crisis, the latest Ebola outbreak or the most recent refugee tragedy, it is clear that many of today's crises traverse national borders and policy domains (Ansell, Boin, and Keller et al. 2010; Beck 2008; Lagadec 2009; OECD 2003). As the causes and consequences of such transboundary crises increasingly stretch across borders, it becomes harder and harder for nation states to go it alone. The effective management of transboundary crises typically requires international collaboration among states and between different policy sectors (Ansell, Boin, and Keller 2010; Sandler 1997). Yet, such collaboration is not always forthcoming.²

The European Union (EU) is a case in point. In recent years, the EU has created an expanding set of mechanisms and arrangements to help member states coordinate their efforts in response to a wide variety of crises (Boin, Ekengren, and Rhinard 2013; Widmalm, Parker, and Persson 2019). The EU's joint response to Haiti's 2010 earthquake disaster is just one example of what have become almost routine EU missions to support destabilized countries outside the EU (Norheim-Martinsen 2013; Tercovich 2014). Member states also collaborated—perhaps somewhat belatedly—in response to highly complex and politically fraught crises such as the 2008 financial crisis, the 2010 ash crisis and various animal disease outbreaks (Parsons and Matthijs 2015; Schimmelfennig 2014).

Collaboration has been significantly less forthcoming in other crises, however. A particularly glaring example is the migration crisis that hit multiple European countries in the fall of 2015. National decisions on border and refugee transport policies were made in a unilateral, ad hoc manner, leaving neighboring countries to

1 We thank the reviewers for multiple rounds of critical comments that helped us to strengthen this article.

2 We employ the terms “collaboration” and “cooperation” interchangeably throughout this article to refer to actors undertaking joint crisis management. We recognize that “collaboration” is a loaded term in the international relations literature due to the distinction between coordination and collaboration games (Martin 1992; Stein 1982).

fend for themselves. Germany opened its borders to refugees at approximately the same time that Hungary started building fences along its borders with Serbia and Croatia. And while the member states did agree—by qualified majority vote—to the redistribution of a limited number of refugees, that agreement was plagued by implementation problems.

These contrasting observations give rise to our research question: Why do states collaborate in response to some transboundary crises but not others? In this article, we formulate a theoretical approach that will help answer this question.

We start with an exploration of the collective action literature. Collective action scholars study situations where actors must collaborate to achieve a shared goal (Sandler 2004, 17). This literature helps to explain why states are hesitant to collaborate, but also identifies factors that may enable such collaboration.³ In this article, we investigate if and to what extent these insights are applicable to understanding why states do or don't collaborate in the face of transboundary crises (cf. Rhinard, Hollis, and Boin 2013). We assess these insights against findings of crisis management studies (Ansell, Boin, and Keller 2010; Backman and Rhinard 2018; Boin, Rhinard, and Ekengren 2014; Laegreid and Rykkja 2018). By bringing together these separate fields of study, we can formulate a set of hypotheses and identify critical factors that are thought to enable a pathway toward joint crisis management.

Why Do States Work Together in Times of Crisis? Insights from Collective Action and Crisis Management Theory

In this article, we draw from two bodies of theory: collective action theory and crisis management theory. The collective action literature has generated a trove of insights with regard to the general willingness of states to collaborate and the chances of success of such collaboration. But collective action scholars have not put a major focus on the specific challenges of collaboration that emerge in response to *crises*. That is why we turn to the budding field of crisis management theory, which helps us understand the peculiarities of crisis situations and allows us to assess and, where necessary, modify the key findings of the collective action literature. In this section, we briefly introduce both fields of study.

The Logic of Collective Action

Our exploration of collective action theory begins with Olson's (1965) classic work, *The Logic of Collective*

Action. The core assertion in Olson's book is that rational egoism (i.e., rational decision making based on self-interest) ultimately undermines the prospect of collaboration that is needed to provide a public good.⁴ As Sandler (1992, 3) concisely puts it, "[Olson's] book rests on a single basic premise: individual rationality is not sufficient for collective rationality." This premise gives rise to what is known as the collective action problem: why would a rational person contribute efforts or resources to the provision of a good when everybody can consume it just as easily and in the same quantity as those who actually helped produce it?

Olson contended that this "free rider" logic applied just as strongly to relations between states as it did to the behavior of individuals within a group (Olson 1965; Olson and Zeckhauser 1966). In fact, collective action is regarded as uniquely challenging at the international level because there is no equivalent of the nation state with authority to compel the provision of public goods (see Nordhaus 2006 on the "Westphalian Dilemma"). Climate change mitigation may be the most obvious example: why would a state engage in politically fraught and expensive reforms if other states are solving the problem?

Myriad works have built upon this original statement of the collective action problem. In this article, we draw from four sets of literature that have applied Olson's insights to the question of international cooperation: International Relations, regional and EU integration, global public goods provision, and common-pool resource management.⁵ These literatures highlight two

4 Pure public goods are nonexcludable and nonrival in consumption (Samuelson 1954). Nonexcludable means that it is practically impossible or prohibitively costly to exclude anyone from consuming the good; and nonrival means that one actor's consumption of the good does not detract from that of others. A classic example is the lighthouse—once its lamp has been turned on, anyone within a reasonable distance can make use of the light, and one person's use of it in no way detracts from another's. Common pool resources, as discussed by Ostrom (1990), are another type of collective good. They are nonexcludable but rival: again, it is practically impossible or prohibitively costly to exclude actors from using them; however, one actor's usage of such a good does diminish the ability of others to use it. The classic example is a livestock grazing pasture shared by a group of farmers.

5 The international relations and regional integration literatures are relatively well known. The global public goods literature can be traced back several decades (Camps 1980; Evans 1970; Kindleberger 1981, 1986; Scott 1974), but it gained traction around the turn of the millennium (Barrett 2006, 2007; Kaul, Grunberg, and Stern 1999; Morrison 1993; Nordhaus 2006; Sandler 1997, 1998, 2004; Stiglitz 1995). For a recent review of this literature, see Kaul, Blondin, and Nahtigal (2016). The commons-management literature also dates back several decades (Butler 1977; Hardin 1968; Nordhaus 1982; Wijkman 1982), but the work that has come to define it is Ostrom's (1990) book on commons governance. While Ostrom's original case studies were of collective action at the community or regional level, she explicitly pondered the transferability of her findings to the international level (Keohane and Ostrom 1994) and went on to apply a model of "polycentric governance" to the management of international-level commons problems, particularly climate change (Ostrom 2010, 2014). For noteworthy summaries of, and recent updates to the commons-management literature, see Agrawal (2002), Cox, Arnold, and Villamayor Tomás (2010), Singleton and Taylor (1992), and Sabel and Victor (2017).

3 There are other approaches to studying collaboration between actors (see f.i. Ansell and Gash 2008). We concentrate on the collective action literature writ large as it is most applicable to the question at hand (why do states collaborate or not in the face of crisis?). To be sure, our aim is not to criticize or further develop the collective action literature. We simply seek to mine this literature and enrich the most important insights with insights from the literature on transboundary crisis management.

fundamental obstacles to international collaboration: (1) the lack of common ground or joint preferences for national governments to agree on joint action, and (2) the enforcement and coordination problems that tend to plague international cooperation even when national preferences align. The key finding that emerges from this literature holds that collaboration is unlikely to happen unless it is strongly encouraged or strictly enforced.

A critical question is whether and to what extent the insights of the collective action literature apply to understanding the willingness of states to engage in transboundary crisis management. The collective action literature does not make a sharp distinction between long-term global challenges and the acute crises that are at the heart of this article (cf. Kaul, Blondin, and Nahtigal 2016).⁶ It focuses on the creation of public goods such as treaties or international organizations. Some of the suggestions for facilitating collective action are thus tightly tied to problems or issues that are fundamentally different from cooperation in a crisis situation.⁷ The mechanisms put forward as facilitators of joint action typically require significant time to work (which, by definition, is in short supply during an acute crisis).

Collective action theory excels in identifying factors that curtail collaboration in the delivery of international public goods. But because the associated literatures have not systematically studied acute crisis responses, we bring in the insights of crisis research to assess those factors and identify others.

Challenges of Transboundary Crisis Management

In most definitions, a crisis situation is marked by a sense of threat, the need for an urgent response and conditions of deep uncertainty (Rosenthal, 't Hart, and Charles 1989). Policy elites perceive an urgent need for action, but it is not clear what can or should be done. This widely shared sense of urgency sets crises apart from the complex policy challenges that take central stage in the collective action literature.⁸

Crisis scholars distinguish between crisis types (Gundel 2005; Rosenthal, 't Hart, and Charles 1989).

One often-made key distinction is between “known” and “unknown” crises (routine incidents v. Black Swans). The implication is that it is easier to manage crises that happen more often than it is to manage crises that have yet to be imagined. Another traditional distinction focuses on the causes of crisis (Erikson 1994). Natural disasters are thought to induce solidarity whereas human-made crises give rise to societal divisions. Cooperation is considered more likely in the former than in the latter.

We define a *transboundary* crisis here as a crisis that crosses geographical and/or policy boundaries (Ansell, Boin, and Keller 2010). A transboundary crisis requires transboundary crisis management capacities. This means that the various types of required capacities—think of analytical, regulative, and delivery capacities (cf. Lodge and Wegrich 2014)—must be organized at the transboundary level. That can be the international level (countries working together) or at the intersectoral level (policy sectors working together). In this article, we are focusing on the former. A joint response requires a multistate agreement on the need for a joint response, as well as adherence to that agreement.

As we have seen, the collective action literature is not optimistic about the chances of international collaboration emerging in the face of complex problems. We can assume that a joint response is even more unlikely in the case of a crisis, if only for the reason that there is less time to produce such a response. The crisis management literature confirms this intuition: it has identified many pitfalls that governments encounter in trying to organize a rapid, effective, and legitimate response to emerging contingencies (Boin et al. 2016; Nohrstedt et al. 2018; Rosenthal, 't Hart, and Charles 1989; Turner 1978). Crisis management scholars are therefore skeptical that crises can be “solved” or even managed; they are really talking about coping efforts.⁹

The challenges involved in managing a crisis deepen when a crisis takes on transboundary dimensions (Ansell, Boin, and Keller 2010; Laegreid and Rykkja 2018). The reason is that information has to be shared across organizational and political borders, decisions have to be made in the absence of clearly defined mandates and communications must be aligned (Boin 2019). Without collaboration between all actors involved, an effective response seems illusive.

In discussing both literatures, we should note that there are two paradigms at work. Collective action research by and large relies on a rational actor approach.

6 The collective action literature does talk about crises (for instance, the climate crisis), but most often does not use the term to denote a threatening situation where a response has to be produced in a relatively brief time window.

7 For instance, there is a heavy focus on how to obtain and most efficiently distribute financing in these works (which does seem to be a genuine problem for “creeping crisis” type issues that fall lower on the policy agenda), but financing does not seem to be as big of an issue when it comes to acute crisis responses.

8 We note that crises can have long incubation phases. The tipping point that demarcates a “creeping crisis” from an urgent crisis is the moment that policy elites converge on the assessment that the situation is dire and remedial action is needed immediately.

9 We limit ourselves to explaining the emergence of actual collaboration between states. We study collaboration as an output rather than a process. We do not seek to explain the effectiveness (or outcome) of the collaboration in minimizing the impact of a crisis. The emergence of a joint response does not necessarily mean that the crisis is effectively managed. A joint response can still be a botched response.

Authors typically treat state interests as exogenously given. Crisis management research complicates this picture, as it typically problematizes the formation of actor preferences. Crises are viewed as social constructions; crisis definitions are viewed as the outcomes of political fights over the proper labeling or framing of emergent issues (‘t Hart 1993). This political perspective on crisis management assumes that states will see protracted battles over problem definitions, which may further inhibit transboundary collaboration.¹⁰

Both literatures thus agree that a joint crisis response is unlikely at best. The collective action literature sees limited prospects for rational alignment between states’ preferences. The crisis literature cautions against the idea that the occurrence of a transboundary crisis will override national concerns and automatically lead to collaboration. The literature is at pains to demonstrate that long-standing social and political divisions do not simply dissolve at the political level in the face of an emerging crisis (Boin et al. 2016). At the same time, the crisis literature brings to the fore a set of cases in which collaboration did happen (thus allowing us to identify enabling factors).

First, we turn to the question of common ground: what are the conditions under which states are more or less likely to agree on the necessity and nature of a joint crisis response? Second, we ask which factors facilitate the implementation of a joint crisis response.¹¹ Both sections will translate the findings into testable hypotheses.

Agreeing on the Necessity of a Joint Crisis Response

In collective action studies that aim to explain why nations collaborate, national preferences play a prominent

role. The common wisdom holds that skewed or heterogeneous preferences inhibit cooperation between states (Keohane and Ostrom 1994, 411). As Scharpf (2006, 851) concludes, “the difficulty of reaching negotiated agreement increases with the heterogeneity of [national] conditions, interests and preferences.”¹² In other words, there is broad agreement that *preference homogeneity* facilitates international collaboration (Keohane and Ostrom 1994, 410; Nováky 2015). The question is whether this holds true for crisis collaboration.

We should consider preference formation at two levels (Fearon 1998; Krasner 1991; Morrow 1994). First, the question is whether actors *within a state* can agree on the nature of the problem and the preferred solution. Second, the question is whether *a set of states* can find sufficient common ground for crisis cooperation. Perusing the collective action and crisis management literatures, we found four factors that are widely thought to affect group-level homogeneity. In this section, we discuss these factors and formulate hypotheses.

Politicization at Home

Crises are socially constructed events that lend themselves to political exploitation (Boin et al. 2009). Crises can rally all parties around the proverbial flag, but they can also provoke political discord.¹³ The literature suggests that when a crisis triggers intense political debate, it becomes more difficult for national leaders to agree on international collaboration (Elgström and Jönsson 2000, 691–2; cf. ‘t Hart 1993).¹⁴ The politicization of crisis “raise[s] the heat of debate, narrow[s] the substantive ground of possible [international] agreement and make[s] key actors, including particularly national governments, less willing to compromise” (Hooghe and Marks 2009, 22).¹⁵

10 We also recognize that some scholars have adopted an institutional approach to crisis management (Christensen, Laegreid, and Rykkja 2016). The findings of these studies tend to further complicate the picture, as additional failure factors are identified. The point that we seek to make remains the same: crisis management is a difficult challenge; transboundary crises are even harder to manage.

11 Chronologically speaking, discussion of these two problems is reversed in the literature. Olson’s original take on collective action emphasized what is alternately labeled the free-riding, defection, or enforcement (monitoring and sanctioning) problem. He assumed that all actors in a group wanted a public good to be produced and then asked why they would nonetheless avoid contributing to its production. Much of the research into international cooperation in the aftermath of Olson’s work focused on this “free-riding” problem, or the closely linked issue of how to coordinate actor behavior in large groups. The underlying puzzle was why efforts at international cooperation nevertheless often failed (or surprisingly succeeded). Subsequently, researchers have more fully explored national preference formation and international bargaining. One key finding—beyond the conclusion that preference homogeneity facilitates cooperation—is the existence of cooperation-confounding multiple equilibria, that is, multiple options for cooperation on a given issue, each with its own distributional implications (Fearon 1998).

12 Olson (1965) argued that *preference heterogeneity* might facilitate the provision of public goods (see also Keohane and Ostrom 1994, 409–11; Russett and Sullivan 1971, 853). More formally, Olson argued that “privileged groups,” that is, groups in which at least one member has a preference schedule that incentivizes it to unilaterally provide the collective good in question, are those in which collective good provision is most likely to occur (Hardin 1982, 43; Sandler 1992, 8–12). Taking a closer look at the work of Olson, we can see that the apparent contradiction can be easily resolved. The “heterogeneity-helps” reasoning assumes there is sufficient common ground among actors for collective action to be the rational outcome of negotiations. “Preference heterogeneity” in many discussions of collective action refers to disparities in preference *intensity* rather than fundamental misalignment of preferences.

13 Man-made disasters appear to be much more prone to societal polarization and politicization than natural disasters (Erikson 1994).

14 Politicization broadly refers to the increased public salience, or visibility, of an issue (i.e., more actors paying attention to that issue) and an increased polarization of opinion surrounding that issue (Baumgartner and Jones 1993; Genschel and Jachtenfuchs 2016).

15 This causal mechanism is broadly in line with Putnam’s (1988) two-level game logic: politicization reduces the Level II (domestic) win sets, making international negotiations (Level I) more difficult.

Transboundary crisis collaboration can easily become politicized (Hobolt and Wratil 2015; Hooghe and Marks 2009, 13, 21–2).¹⁶ It has been observed, for instance, that some EU member states did not want to request disaster assistance from other member states (through the EU's Civil Protection Mechanism) because it would suggest that the disaster-hit state could not handle its own affairs (Boin, Ekengren, and Rhinard 2013). In the United States, the request for federal assistance after a disaster has been the object of intense politicization (Gasper 2015; Reeves 2011). It is simply not a given that a state in need of outside help will seek it.

Building on these insights, we hypothesize that

H1: The more countries in which the idea of transboundary crisis collaboration is politicized, the less likely these countries are to seek collaboration to deal with a common threat.

Crisis Exposure and Expected Benefits

Ostrom's work suggests that a community whose members will be similarly harmed through inaction and expect to benefit similarly from joint action is more likely to work collectively. For Ostrom, then, collective action is triggered by a perceptible and common threat to the resource upon which group members jointly depend (Ostrom 1990, 90–2, 211). A mutually vulnerable community of actors becomes a key explanation for explaining cooperation (Singleton and Taylor 1992; cf. Wade 1988).

Threat exposure is not a binary concept. Even if all members of a group of states are exposed to a transboundary crisis, they may well be exposed in different ways. In line with international relations works on the “multiple equilibria” problem (Fearon 1998; Koremenos, Lipson, and Snidal 2001), the theoretical expectation is that asymmetric exposure is problematic for cooperation because it will lead national governments to prefer different crisis response strategies with different distributional consequences and, thereby, to conflictual, cooperation-threatening intergovernmental bargaining.

The practical upshot is that if states do not share a similar perception of threat and consequences, they will also expect to benefit unevenly from a joint response to that threat. The un- or under-exposed states will receive far less benefit from a joint crisis response than the heavily exposed states (at least in the short run). According to the collective action

literature, we should expect the former to be less enthused about bearing the costs of joint action, as this would essentially require “uncompensated sacrifices” from those states (Scharpf 2006, 851). Asymmetric exposure thus creates problematic preference heterogeneity on the basic desirability of a joint crisis response.

One example of asymmetric exposure can be found in the various ways EU member states were exposed to the migration crisis in 2015–16. Some—for example, Croatia and Slovenia—were “transit countries” (while hundreds of thousands of people passed through them, only a few requested asylum). Other member states—for example, Austria, Germany, and Sweden—were “destination countries” to which hundreds of thousands if not millions of people applied for asylum. Yet other countries—think of Italy and Greece—were the first points of entry to the EU. In such cases, collective action theorists would expect national leaders on different sides of the exposure asymmetries to arrive at divergent preferences on the necessity of a joint crisis response. In turn, this type of preference heterogeneity will complicate efforts to agree on a specific response strategy.

This discussion leads to the following hypothesis:

H2: The more even and symmetric the perceived exposure of states to a transboundary threat, the higher the willingness to initiate joint collaboration to deal with that threat.

Can States Decouple?

If a state can simply disassociate or de-couple itself from a crisis (for instance, by building a wall) and thus limit its exposure (to immigrants), collective action theorists assume that the will to cooperate diminishes.¹⁷ Conversely, if the costs of de-coupling are high, or if it is practically infeasible, cooperation may be perceived as necessary. The question, then, is whether and how easily states can decouple, that is, whether they can unilaterally build a fence (metaphorically or literally) and seal themselves off from the crisis.

It is probably easier to decouple from some crises than it is from others: whereas people may be stopped at the border, it is impossible to shield a country from volcanic ash. But the ease of decoupling is also shaped by previous decisions and sunk costs (Schmitter 1969,

16 The impact of politicization on international collaboration can vary by issue area (Elgström and Jönsson 2000, 691–2; Genschel and Jachtenfuchs 2016; Hobolt and Wratil 2015).

17 Decoupling is a term used in the crisis management literature to signify the disconnection of a unit or organization in the midst of a crisis (Perrow 1999). Hardin (1982, 72–4) raised this “exit” question in his review of the collective action literature. Hardin's point was that if individual group members have easy access to an alternative good, they are less likely to work toward producing a collective one.

162–4). A higher level of integration between states raises the costs of noncollaboration for a country. In EU studies, a history of cooperation is thought to raise “the political costs of failure to agree, since a failure to agree can now have adverse implications for the regime” (Fearon 1998, 298).

There are several reasons why this is the case. First, states may hesitate to decouple because doing so would entail heavy losses (Parsons and Matthijs 2015; Schmitter 1970). Second, and closely related, the perceived fragility of an interdependent regime may matter. If the defection of one state—or a limited number of states—would undermine a regime, we can expect the leaders of that state to think twice about decoupling and for them to come under intense external pressure to cooperate. Third, the existence of rules against exiting an international regime may severely complicate efforts at decoupling.

The Eurozone serves as a good example of the high costs that may come with defection from cooperation. The Euro remains a symbolic integration project and the sunk costs of adopting the common currency are high. Deep interdependencies have been created by the monetary union, such that the whole regime is threatened by the potential departure of a member state. The rule-based barriers to exit are significant: there is no formal procedure for Eurozone exit, save exiting the EU entirely (Schimmelfennig 2018). In comparison, sunk costs and interdependencies were relatively low in the EU’s refugee and asylum regime prior to the migration crisis: not many observers would have identified the Dublin Regulations as one of the EU’s symbolic integration projects and the legal barriers to exit (via border closure) were relatively weak (temporary border closures are permitted under the Schengen Area rules).

Based on these insights, we hypothesize that

H3: The likelihood of a collaborative crisis response increases when states face a threat from which it is practically difficult if not impossible to decouple.

Repeated Interaction

A core finding in the collective action and international cooperation literature pertains to the impact of repeated interaction. In repetitive, or “iterative” settings, actors are not faced with a one-off choice of whether to work collectively or not. They know that they will interact with the same partner(s) many times. Repeated interaction settings dramatically increase the prospects for cooperation (Axelrod 1984; Keohane 1986; Koremenos, Lipson, and Snidal 2001;

Nye 1987; Oye 1985; Sandler 1992, 2004; Taylor 1976).¹⁸ Koremenos, Lipson, and Snidal (2001, 764–5) summarize the conventional wisdom in concluding that “the density of contemporary international interdependence creates repeated interaction that makes cooperation feasible.”

Translating this logic to the crisis context, we might expect that where states engage in particularly dense interactions across a host of policy sectors and look set to do so well into the future (e.g., the European Union), they will be more likely to collectively manage crises. Repeated interaction can foster collective action in two ways.

First, institutional structures are likely to arise when countries collaborate over time to deal with known risks. The collection action literature has pointed to policy communities or “clubs” in such areas as aviation and animal disease control. This literature has also described how in the climate change arena states have built clubs to provide for public goods (Hovi et al. 2019; Nordhaus 2015; Sandler 2013). These “clubs of the willing” provide a clear structure that states can use in times of sudden crisis.

Second, repeated interaction can lead to the development of norms and social conventions that facilitate cooperation. The reasoning is that repeated interaction prompts the development of networked relationships, shared norms and trust (Putnam 1993). Ostrom and colleagues have explained how trust (in the context of trusting others to reciprocate) can develop over time and enable collective action (Poteete, Janssen, and Ostrom 2010, 226–7; see also Baland and Platteau 1996; Wade 1988). Interactions over a prolonged period might even lead to the development of a common identity among actors that would radically shift their preferences and thereby expedite cooperation (Ekengren 2018). This notion is visible in Beck’s (2008) discussion of the cosmopolitan state (see also Russett and Sullivan 1971, 851–2; Wendt 1994).

There is empirical research to back this up: repeated interaction between professional bureaucrats in the EU

¹⁸ It does this by creating a “shadow of the future” that influences decision making in the present. This shadow emerges because actors know that they will be working with each other not once but many times and they value the outcomes of both the first and the subsequent interactions. There is a tit-for-tat effect at play here: if an actor defects from cooperation in Round 1, they can expect their counterparts to do so in Round 2. In other words, non-cooperative behavior can be punished over time and everyone is aware of—and expects—such sanctioning to occur (Axelrod 1984). In this way, the foreknowledge and valuation of future interactions makes actors more likely to cooperate in the present. Cooperation becomes the rational strategy even when it would be irrational in a one-off instance of the same collective action situation.

(COREPER), for instance, has fueled a socialization process. As a result, actors were better able to understand each other's problems and operating constraints, thereby facilitating a problem-solving approach in cases where hardcore intergovernmental bargaining might otherwise be expected (Lewis 1998, 2003; cf. Hooghe 2005). Recent research on civil protection cooperation in the EU empirically confirms the importance of mutual trust (Widmalm, Parker, and Persson 2019; cf. Ekengren 2018). A study of the EU's military crisis management operations talks about a culture of compromise that has emerged between states as a result of intensive collaboration over the years (Novaky 2015).

All this leads us to formulate the following hypothesis:

H4: The greater actors' shared experience (particularly with building and deploying crisis management capacities), the greater the chance of a collaborative response.

Implementing a Joint Crisis Response

So far we have examined several factors that are thought to nurture a willingness to engage in a multi-lateral crisis response. Now, we return to Olson's core assertion: even when sufficient common ground for cooperation exists, actors often fail to follow through and work together (the so-called defection problem). The collective action literature identifies three factors that seem to have an impact on joint action: the number of actors involved, the availability of a coordination mechanism and the existence of feasible solutions. The crisis literature identifies another important factor: leadership. We will consider these factors in the context of transboundary crises and formulate a second set of hypotheses.

Number of Actors

Olson's best-known finding is that the "free-riding" problem increases—and the prospects for successful collective action concurrently decrease—with group size. This notion that the prospects for collective action diminish with a growing number of actors involved has become accepted wisdom in the international cooperation literature (Keohane and Ostrom 1994; Koremenos, Lipson, and Snidal 2001, 765; Oye 1985; Sandler 1998, 243; Sandler 2004, 32–4; Scharpf 2006).¹⁹

The primary logical support for this claim is that as the number of actors in a group increases, the

incentives for rational individuals to contribute decrease (due to the nature of the relationship between the costs and benefits of contributing (Olson 1965).²⁰ Olson also noted that it is simply more difficult and costly to coordinate actor behavior in large groups (cf. Frohlich and Oppenheimer 1970; Hardin 1982, 43; Sandler 2004, 33).

The crisis literature adds empirical insights that confirm this notion. Countries tend to have very distinct crisis management structures and cultures, which can differ along a multitude of dimensions (Kuipers et al. 2015). The accompanying variety of approaches and practices creates quite a puzzle for transboundary crisis coordination (Boin and Bynander 2015; Laegreid and Rykkja 2018; Widmalm, Parker, and Persson 2019). The resulting challenges diminish the prospect of transboundary collaboration.

So, while it is admittedly not a groundbreaking hypothesis, we do nevertheless expect that

H5: The larger the affected group of nations, the less likely is a collaborative response to emerge.²¹

Coordination Mechanisms

Olson (1965, 2, emphasis added) famously warned that "unless the number of individuals in a group is quite small, or *unless there is coercion or some other special device* to make individuals act in their common interest, rational self-interested individuals will not act to achieve their common or group interests." The collective action literature prescribes binding rules and a collective enforcement mechanism to mitigate the free-rider problem and thereby facilitate cooperation (Frohlich and Oppenheimer 1970).

National governments use this "coercive authority" function *within* their countries. They compel the provision of public goods such as national defense or a public education system through their power to raise and spend revenue. But such authority is, of course, rare at the international level (Nordhaus 2006; Oye 1985; Russett and Sullivan 1971), particularly when

²⁰ Subsequent research has shown that this incentives-based effect is actually more nuanced than Olson contended. It is now widely regarded as context- or case-dependent, meaning that in some collective active situations the incentives structure can favor collaboration, whereas in others it confounds collaboration (Hardin 1982, Chapter 3; Keohane and Ostrom 1994; Oliver 1993, 274–5; Sandler 1992, 35–54; Sandler 2004, 11, 32–4; Udén 1993, 241–2).

²¹ This hypothesis assumes similar levels of crisis exposure: the expectation is that 180 countries evenly exposed to a crisis will find it more difficult to develop and implement a collaborative response than 20 countries evenly exposed to a crisis. Conversely, 180 mutually vulnerable countries might be more likely to cooperate than 20 unevenly exposed countries with viable decoupling options.

¹⁹ For support in the crisis literature, see Ansell, Boin, and Keller (2010) and Quarantelli (1988).

it comes to crisis management (cf. Boin, Busuioac, and Groenleer 2014).²² Its absence makes actual collaboration elusive, according to the collective action literature (Keohane 1984; Koremenos, Lipson, and Snidal 2001, 766; Oye 1985, 20; cf. Kaul and Blondin 2016; Ocampo and Stiglitz 2011).

The crisis management literature offers a crucial insight with regard to the effectiveness of various types of facilitating mechanisms (often discussed in terms of coordination mechanisms). Crisis scholars distinguish between a hierarchized, top-down approach and mechanisms that are designed to facilitate emergent collaboration. There appears to be general agreement that a so-called command-and-control approach does not work, especially in a network setting where there is no actor in a position to command others (Boin and Bynander 2015). Collaboration is more likely, say crisis management scholars, when emergent collaboration—willing actors seeking to act together—is facilitated rather than directed (for an instructive example, see Beck and Plowman 2014).

Crisis research shows that international organizations can facilitate and enable emergent collaboration.²³ At the global level, we might think of the World Health Organization (WHO) and its efforts to support multi-country responses to disease outbreaks. For instance, the WHO took on this task in response to the recent Ebola outbreak, working—not without criticism—to coordinate the large-scale multilateral and multi-level response. The EU has a number of effective mechanisms (Boin, Ekengren, and Rhinard 2013).²⁴ For instance, the EU has built a substantial institutional machinery

(policies, funding, organizational capacity) to coordinate relief efforts of member states in the face of large-scale crises.²⁵ The EU now routinely initiates and runs quite complicated response efforts when a state requests assistance (Widmalm, Parker, and Persson 2019).

Building on these insights, we arrive at the following hypothesis:

H6: The availability of organizational capacity to facilitate emergent coordination across boundaries makes transboundary crisis management collaboration more likely.

Feasible Solutions

Common intuition suggests that the nature of a problem can make collaboration harder or easier to achieve. Crisis scholars have done a lot of work—not all of it fruitful—on building crisis classifications and exploring how these may affect the response to the various crisis types. The key defining factor, crisis scholars seem to agree, is the level of uncertainty with regard to causes and solution (Ansell, Boin, and Keller 2010, 197–8; Boin et al. 2016, 3–4; Rosenthal, Boin, and Comfort 2001, 7; Sagan 1994, 234; Weick and Sutcliffe 2015). A readily identifiable threat, with known causes and proven solutions, helps multiple actors to mobilize a crisis response by providing a convergence point for collaboration.

We can find agreement in the collective action literature. For Sandler (1998, 237), the resolution of uncertainty about the origins of an international problem is “a precondition for collective action.” As an example, he cites the Montreal Protocol (widely regarded as one of the more successful instances of international cooperation in response to a crisis) and argues that it would not have emerged in the absence of a direct link between chlorofluorocarbons (CFCs) and depletion of the Earth’s ozone layer.²⁶ An example of a recent

22 The development of such capacities is itself a second-order collective action problem, hence their international rarity. As Oye (1985, 21) points out, the creation of collective enforcement mechanisms “demand[s] an extraordinary degree of cooperation.” But where binding rules and enforcement authority do exist, the theoretical expectation is that they will facilitate cooperation. Some binding agreements backed by enforcement authority do exist at the global level, with the World Trade Organization’s dispute settlement system and NATO’s Article 5 as well-known examples. Even in the EU, there are few binding agreements with regard to a joint crisis response. In the EU, there are some reporting requirements and binding response protocols (for instance, in the event of an animal disease outbreak or food-chain threat). Plus, the EU has developed real capacity to trigger joint responses to financial crises. But most responses to most types of crises fully depend on the willingness of states to join forces.

23 This finding is supported by Ostrom’s research (Ostrom 1990; see also Agrawal 2002; Cox, Arnold, and Villamayor Tomás 2010). Sabel and Victor (2017) have questioned how bottom-up approaches to coordination can get off the bottom when it comes to international—as opposed to community-level—collaboration, and they accordingly suggest a central, institutionalized body, but one designed to link-up the efforts of actors rather than to direct them top-down.

24 For an overview, see Boin, Ekengren, and Rhinard (2013); Backman and Rhinard (2018). This is not to say that the EU is endowed with full-fledged crisis management capacities. Areas, such as civil protection, critical infrastructure, energy security, health security, and the fight against terrorism continue to be regarded primarily as national responsibilities. We might say that European security cooperation today is in the same place that economic cooperation was in the early 1980s (cf. Genschel and Jachtenfuchs 2016).

25 The EU now has the Emergency Response Coordination Centre (ERCC), a 24/7 crisis center operated by the Commission’s Directorate-General for European Civil Protection and Humanitarian Aid Office (ECHO), and the Integrated Political Crisis Response arrangements (IPCR). The EU also has in place an array of sense-making systems and crisis rooms (Boin, Ekengren, and Rhinard 2014). The EU Member States have recourse to the Solidarity Clause, which confers upon any Member State overwhelmed by a terrorist attack or natural or man-made disaster the right to request assistance from the other Member States, as well as the Union itself (Martino 2015; Myrdal and Rhinard 2010). In addition, various EU agencies have demonstrated capacity to support joint crisis management operations (Pérez Duran and Triviño Salazar 2018).

26 There are studies of international cooperation which suggest that uncertainty about the nature of a collective problem can actually drive collaboration (see, e.g., Elgström and Jönsson 2000; Sabel and Victor 2017). Generally, however, the mechanism these studies imply—a mutual learning or problem-solving process that unfolds over time—does not appear to be a fast-acting one. That is, its practical relevance in crisis situations characterized by extreme levels of urgency can be questioned. For its part, the crisis literature has long been unequivocal about the impact of uncertainty on crisis responses: it “creates problems for action” (Turner 1976, 378).

transboundary crisis in which there was prolonged uncertainty about the nature of the threat is the so-called Cucumber Crisis of 2011. This deadly *Escherichia coli* outbreak was centered in Germany but cases spread to several European countries. German officials notably framed the outbreak as the fault of Spanish cucumber producers before its real source—an organic farm located in Germany—was finally identified. As a result, cooperation between the various states involved was undermined, to say the least.

Even if the proximate cause(s) of a crisis are identified, transnational response efforts may be confounded by the lack of available response options or uncertainty about their effects (Fearon 1998; Koremenos, Lipson, and Snidal 2001). Different options tend to have divergent cost-benefit implications for the states involved and therefore may present bargaining problems (Garrett 1992, 534, 541; Koremenos, Lipson, and Snidal 2001, 765; Krasner 1991; Morrow 1994; Singleton and Taylor 1992, 319). Quarantelli and Dynes (1976, 142), doyens of disaster studies, noted that multiple response options can engender “community polarization around [the] different possibilities.” The Icelandic Ash crisis in 2010 illustrates the point: the causes of air traffic paralysis were undisputed (the ash cloud from the Eyjafjallajökull volcano), but there was uncertainty about the level of ash density through which it was safe to fly and policymakers initially struggled to agree on a workable solution (Kuipers and Boin 2015).

The literature suggests that this problem can be mitigated—and international collaboration facilitated—by the availability of a salient, seemingly effective solution. In 1960, Schelling developed the concept of “focal points” (alternatively termed “Schelling points,” prominent solutions, and salient solutions). The underlying logic here is that if a form of cooperation “can be identified as in some way obvious and perhaps fair, [group] members may respect it” (Russett and Sullivan 1971, 858; Young 1989, 363; Young and Osherenko 1993, 14; Zürn 1992, as cited in Hasenclever, Mayer, and Rittberger 1997, 53–8). The mechanism is straightforward: by offering a clear focal point around which expectations and preferences can converge, prominent solutions “can be decisive in the resolution of distributional conflict in [international] bargaining” (Fearon 1998, 298).²⁷

Solutions for complex policy problems may emerge from different sources, including international law (Russett and Sullivan 1971, 858); repeated negotiations within a regime (Fearon 1998, 298); epistemic

communities (Ekengren 2018; Haas 1992); or ideological focal points (Finnemore and Sikkink 1998; Garrett and Weingast 1993). It is not clear, however, whether these sources provide timely solutions in times of crisis.

One might expect to find such solutions in crisis plans. It turns out that such plans rarely contain effective solutions for transboundary crises. Clarke (1999) famously described disaster and crisis plans as “fantasy documents” because the proposed approaches simply cannot work. Creating solutions “on the fly” may be the next best thing. For some crisis types, especially the “known” crises, schools of thought exist that provide a basis for developing solutions (think of financial crises or epidemics). For other crisis types (the “unknown unknowns”), a solution may have to be invented pretty much in the moment. We thus see a continuum that ranges from the availability of a prominent and feasible solution to a wide-open policy space in which solutions must somehow be found (and quickly). We hypothesize that the former scenario is more likely to result in a cooperative response than the latter.

This discussion of uncertainty leads to the following hypothesis:

- H7: When causes are clear and a proven solution is available (or a clear route to finding one), collaborative crisis management becomes more likely.

Leadership

Once states agree in principle that cooperation is desirable if not necessary, a final push may be needed to bridge the gap between intention and action. In the public administration literature, the presence of so-called “czars” has been described as critical to cross-policy coordination successes (for a discussion, see Vaughn 2014). The literature on crisis management often refers to the role of leadership to drive crisis collaboration (Boin et al. 2016). Empirical studies of transboundary crisis management successes appear to confirm to notion [Vasi and Macy (2003) refer to “mobilizers”]. For instance, the leadership of Javier Solana—in his capacity of EU High Representative—has been described as indispensable when it came to implementing the earliest EU military crisis management missions (Boin, Ekengren, and Rhinard 2013; Nováky 2015).

Leadership is, of course, hard to define and its effects are hard to establish. Moreover, one might question how much room there is for these “mobilizers” in the face of crisis. Yet, the crisis literature sees a distinct role for crisis leaders. While we assume that the room for crisis entrepreneurs such as Solana may be limited

²⁷ Smart and Vertinsky (1977) argue that the need to urgently evaluate a wide range of potential responses in the midst of a crisis can overload and paralyze organizations. For an intriguing approach to make that happen, see Beck and Plowman (2014).

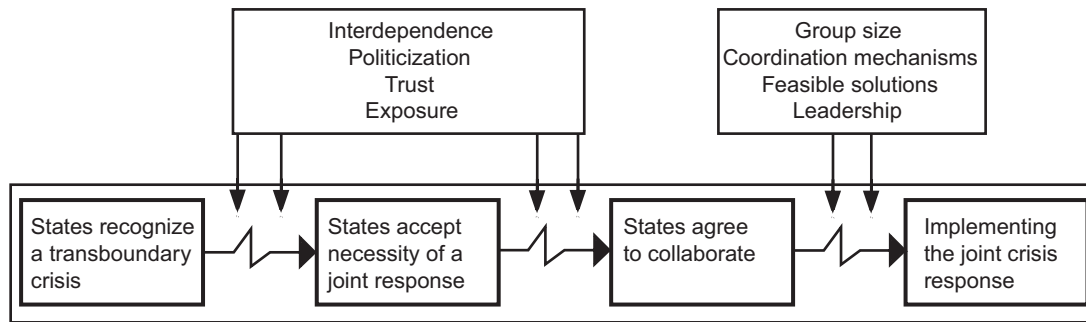


Figure 1. A process model of transboundary crisis collaboration.

in the international arena, we can hypothesize that such officials may make a difference:

H8: The presence of a trusted and experienced leader facilitates the implementation of transboundary crisis collaboration.

Studying Collective Action in the Face of Transboundary Crises: Toward a Theoretical Framework

We started this article with the following research question: How can the (non-)emergence of transboundary crisis management collaboration be explained? To answer this question, we reviewed the collective action and crisis management literatures. The key observation in the collective action literature holds that countries are unlikely to collaborate unless it is in their interest or they are coaxed to collaborate. The crisis literature asserts that the presence of a transboundary crisis, by itself, does not necessarily make transboundary collaboration more likely. The default expectation, according to these theoretical insights, should therefore be that collaboration between states is unlikely to materialize in the face of a transboundary crisis.

That does not mean it is impossible. It simply suggests that major barriers must be overcome before states will deliver a joint response to a transboundary crisis.²⁸ Based on our reading of that literature, we recognize three barriers that must be negotiated:

Barrier #1: States must accept the necessity of international collaboration in the face of a transboundary crisis.

Barrier #2: States must agree to collaborate.

Barrier #3: States must jointly implement the agreed-upon strategy.

Both literatures identify a set of conditions and factors that are thought to enhance or decrease the prospects of joint collaboration in the face of crisis. More specifically, the literature identifies factors that can help to push states over the barriers to a joint response. Conditions of interdependence, even exposure, low politicization and mutual trust are thought to help states overcome the first two barriers. The third barrier to actual collaboration is more likely to be bridged when the group of affected states is relatively small, coordination mechanisms are present, feasible solutions are available and recognized leadership is involved in bringing and keeping the states together. In figure 1, we have depicted our understanding of the barriers between key steps in the process that leads to transboundary crisis collaboration and the factors operating on these barriers.

This article has offered a set of hypotheses that together may help to explain under which conditions a group of states will work together in the face of a transboundary crisis. The next critical step is to operationalize key variables and test the hypotheses. Moreover, it will be necessary to establish whether these variables are critical conditions or enabling factors. This will require a fresh empirical effort, as neither the crisis literature nor the collective action literature has systematically studied transboundary crisis responses. The task is to build a database of transboundary crises that allows for coding both the dependent variable (collective action) and the independent variables identified in this article (cf. Blondin forthcoming).

A Sense of Optimism?

If there is one thing that all collective action and crisis scholars appear to agree on, it is that the nation state cannot handle a transboundary crisis by itself. A joint response is often needed. The work of these scholars may predict failure, but we know that, at least in some cases, states do work together to manage a transboundary crisis.

The EU is a case in point: joint collaboration has been built and it is used. At the same time, these capacities are limited and they are not always used. This goes

²⁸ This use of barriers is inspired by the so-called barrier model in the policy literature describing the hurdles that problems or issues must surmount to reach the policy agenda (Cobb, Ross, and Ross 1976).

a long way in explaining why the EU manages to jointly respond to one crisis (the Icelandic Ash crisis), while utterly failing in the face of other crises (immigration). This allows for a sense of optimism: there may be a road forward that leads to regimes in policy sectors affected by transboundary crises that will facilitate or perhaps even encourage collaborative crisis responses. Our review of the literature suggests a pathway toward a joint crisis response: transboundary crisis collaboration is more likely to emerge when it is facilitated by some type of international institution with proven capacities.

Building on our theoretical discussion, we can start thinking about the institutional features and types of capacities that are most likely to make a difference (cf. Lodge and Wegrich 2014). First of all, it would be helpful to create *analytical* capacity that helps to produce accurate, informative, and authoritative situation reports so that different actors can agree on the cause, scope, urgency, and potential effects of the threat. In the international arena, this type of capacity exists but is scattered across institutions and policy sectors (Boin, Ekengren, and Rhinard 2014). Second, it may help to have formal agreements in place with regard to the need of joint action should a transboundary crisis materialize. NATO's Article 5 and the EU's Solidarity Clause offer promising templates. Third, it helps to have coordination templates in place that facilitate collaboration in dynamic times.

In a time when transboundary crises appear to be on the rise, a sense of optimism might be derived from this article. It is possible—even collective action theorists agree—to build the institutional capacities needed to forge a joint crisis response. The question remains when and how countries choose to make use of these capacities.

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